

FIG. 2

Germline Ig Alpha-2 Probe

Germline Ig Epsilon Probe

GGCTCCACTGCCGGCACAGAAATAACCAACCGGTTACTGATCATCTGGAGGTCCAGGAACCGACAGGGAGCCGG
ACGGGGCACACCATCCACAGGCACCAATGGACGACCCGGCGTTCAGCCTCACACAGCCATCCGGTCTCCCTGT
ACCCGGCTGGTGCAAAACATTCCCTCCAAATGCCAACCTCCGTG

Germline Ig Gamma 1 Probe

ACACACCAGAGGCTGTGACTTGAGGCCCTCCAGGACGCCGGCTGGGCTGGGAGCAACATGACTGGATGGGGCAAGGCCGGC
CGTGGGGTGTGATGCCAGGAATGGGCACGCCGACCTGAGCTCAGGAGGCCAGCAGGAGGGAGGAGGGAGGAGGGCCCAAGGTG
AACGGAGGGGCTTGTCCAGGGCGGAGCATCACCGGAGGCCAGGGTCAAGGTGCTGGCCGTGGGGCTTCCTCT
CAGCCAGGACCAAGGACAGCAGGCCCTCCACCAAGGGCCCATGGGTCTTCCCCCTGGCACCCCTCCAAAGAGCACCCTCTGG
GGGCACAGGGGGCCCTGGGTGTCCCTGGTCAAGGACTACTTCCCCGAAACGGGTGACGGTGAACTCAGGGCCCTGA
CCAGGGGGGTGCACACCTTCCCAGGCTGTCTACAGTCCTCAGGACTCTACTCCCTCAGCAGGGTGTGACCCGTGCCCCCTCC
AGCAGGCTTGGGACCCAGACCTACATCTGCAACAGTGAATCACAAAGGTTGGACAAGAAAAGTTGAGGCC
CAAATCTTGTGACAAACTCACACATGCCCAACCG

FIG.—3A

Germline Ig Gamma 2 Probe

CCAAGCCAAACAGGGCAGGAACACACCAGGGCTGACTGAGGGCTTCCATGACGCCAGGGCTGGGGAGCACGGGACATGAGCG
 GGATGGGGCAGAGCCGGGGGTGATGCAGCATGGCAGGACCCACCTGAGGTGAGGAGGGCAGTAGAACGGAGGGAG
 GAGGAGAGGGCCCCAGGTGAACGGAGGGTTGTCCAGGCCAGCAGCATACTGGGCCAGGGCAAGGTCAAGCAGTGTGCTG
 GCCGTGGGGCCCTCTCTCAGCCAGGGCTCCACCAAGGACAGGAACAGGACAGGGCCATCGGTCTTCCCCTGGGGCCCTG
 TCCAGGAGCACCTCCGAGAGCACAGGGCCCTGGCTGGCACACCTGGCTCTCAGGTGCTTAAGGACTACTTCCCAGGTG
 GAACTCAGGGGCTCTGACCAACCTGGGGCTTCACTACACCTGGACCCAGACTACACCTGCAACGGTAGATCACAGCCAG
 TGGTGACCGTGGCCCTCCAGGAACCTGGGACCCAGACTACCTGGCAACCTGTGAGTGGCACCCAGCACCACCTGTGG
 GACAAGACAGTTGAGGGCAAATGTTGTGTGAGTCAGTGGCCACCCGTGGCACGGACCCAGGTGAGTGGCACCCAGGTCA

Germline Ig Gamma 3 Probe

ACACACCAGGGCTGACTGAGGGCTCCAGGACGACCCGGCTGGGGAGGGTGGAGGAACATGACGGGATGGGGCAGAGCCAGC
 CATGGGGTGTGATGCCAGGAATGGGCATGACCCGACCTGAGCTCAGGGCAGGACATGCCAGGGCAGGGCAGGGGGCCAGGTG
 AACCGAGGGGGCTTGTCCAGGCCAGGGCAGCATACCCGGAGGGCAGGGTCAAGCAGAGCTGGGGCTAGGGGGCTGGGG
 CAGCCAGGGACCAAGGACAGGGCTGGCTGGCTGGTCAAGGACTACTTCCCCGAACGGGTGACGGGTGTTGGAACCTGG
 GGGCACAGGGGGCCCTGGCTGGCTGGCTGGTCAAGGACTACTTCCCCGAACGGGTGACGGGTGTTGGAACCTGG
 CCAGGGGGTGTGCACACCTTCCCCGGCTGTCTACAGTCTCAGGACTCTACTCCCTCAGGAGCTGGTGAACGGTGG
 AGCAGGCTGGCACCCAGACCTACACCTGCAACCTGAGTGAATCACAAAGGCCAGCAACACCAAGGGACAAGAGAGTGTGAGCT
 CAAAACCCACTTGGTGAACACAACATGCCACATGCCACATGCCACATGCCACATGCCACATGCCACATGCCACATGCC
 CACGGTGCCC

Germline Ig Gamma 4 Probe

GGCCAGGCCACATGGAAGGCCAACGGGGGAGGCCAGGCCAGGGCTTCAAGGCCACACCCAGGTG
 GAGACGGAGGGGACCGTGGGGCAGGGCTCCAGGCCAACAGGGCAGGCCACACCCAGGTGACTGAGGGCTCCAGGAGC
 ACCGGGCTGGAGCACGAGGAACATGAGGGATGCCAGGGCAGGGCCAGGGGAGGGGGCTGGGGTGTGGGGCTGGGG
 TGAGGCTAGGGAGGGCAGGCCAGGGCTGGGGCTGGGGAGGGGGCTGGGGCTGGGGCTGGGGCTGGGGCTGGGG
 CAGAGGCCAGGGCAGGGCTGGGGCTGGGGAGGGGGCTGGGGCTGGGGCTGGGGCTGGGGCTGGGGCTGGGG
 GGGCCATCCGTCTGGCCCTGGGAGGACCTGGGGACTCAGGGGGCTGGGGAGGGGGCTGGGGCTGGGG
 CTACTTCCCCGAACGGGTGACGGGTGCTGGAAACTCAGGGGGCTGGGGAGGGGGCTGGGGAGGGGGCTGGGG
 AGTCCCTAGGGACTCTACTCCCTCAGCAGGGTGGTGAACCGTGGCCAGGCTGGGGAGGGGGCTGGGG
 GTAGATCACACAAGGCCAGCAACACCAAGGGACAAGAGAGTGTGAGTCCAAATAATGGTCCCCCGTGG

FIG.-3B

Germline Ig Alpha-1 Probe

Germeline Ig Alpha-2 Probe

German Technical Probe

GGCTCCACTGCCGGCACAGAATAACAACCACGGTTACTGATCATCTGGGAGCTGTCAGGGACAGGGAGCCGG
ACGGGGCCACACCATCCACAGGCACCAATTGGACGACCCGGCGCTTCAACAGGCCATCCGGTCTTCCCCTTG
ACCCGGCTGCTGCAAAACATTCCTCCAAATGCCAACCTCCGTG

Germline Ta Gamma 1 Probe

ACACACCAGGGCTGACTGAGGCCTCCAGGACGCCGGCTGGAGAACATGACTGGATGGGTGAGGCCGGCG
CGTGGGGTGTGCCAGGATGGCACGACCTGAGCTCAGGAGCCAGGAGGGAGGAGAGGGCCAGGGT
AACGGAGGGGCTTGTCCAGGCCGGCAGCATCACCGAGCCAGGGTCAAGGTCTGGCGTGGCCGTTGGGCTCT
CAGCCAGGAAGCACAGCAGCAGCTCCACCAAGGGCCATCGGTCTTCCCCCTGGCACCCCTCCAAGGGACCTCTGG
GGGCACAGGGGGCCCTGGGCTGGCTGGTCAAGGAACTTCCCCGAACCGG

FIG. 4A

Germline Ig Gamma 2 Probe

CCAAGCCAAACAGGGCAGGACACACCAGAGGCCTGACTGGAGGCCATGACGCCAGGCTGGGAGGCACGGAGGAACATGGAGCG
 GGATGGGGCAGAGCCGGCCGGTGGGTGATGCCAGCATGGGACCCACCTGAGGCTGAGGAGGGCAGTAGAACGGAGGGAG
 GAGGAGAGGGCCCAAGGTGAACGGAGGGCTTGTCCAGGCCAGCAGGATCACCTGGAGGCCAGGGCAGGGTCAGCAGTGCTG
 GCCGTGGGGCCCTCTCTAGGCCAGGACGCCAGGACAGCAAGGACAGCAAGGGCCATCGGTCTCCCCCTGGGCTGGTCAAGGGACTACTTCCCCGAACCGG

Germline Ig Gamma 3 Probe

ACACACCAGAGGCTGACTGGGGCTCCAGGGACCCGGGCTGGGAGGGCTGGGAGGAACATGACGGGATGGGGAGGGCAGAGGCCAGC
 CATGGGGTGTATGGCAGGATGGGATGACCGAACCTGAGCTCAGGGCAGGAGAGAGGGAGGGAGGGAGGGAGGGCCAGGTG
 AACCGAGGGGGCTTGTCCAGGGGGCAAGCATCACCGGGGGCAAGGCTCACCAAGGGCCATCGGTCTCCCCCTGGGCCCTGCTCCAGGAGCACCTCTGG
 GGCCAGGACCAAGGACAGCAGCTTCCACCAAGGGCCATCGGTCTCCCCCGAACCCGGTACGGACTACTTCCCAGGAACTGGAACTCAG

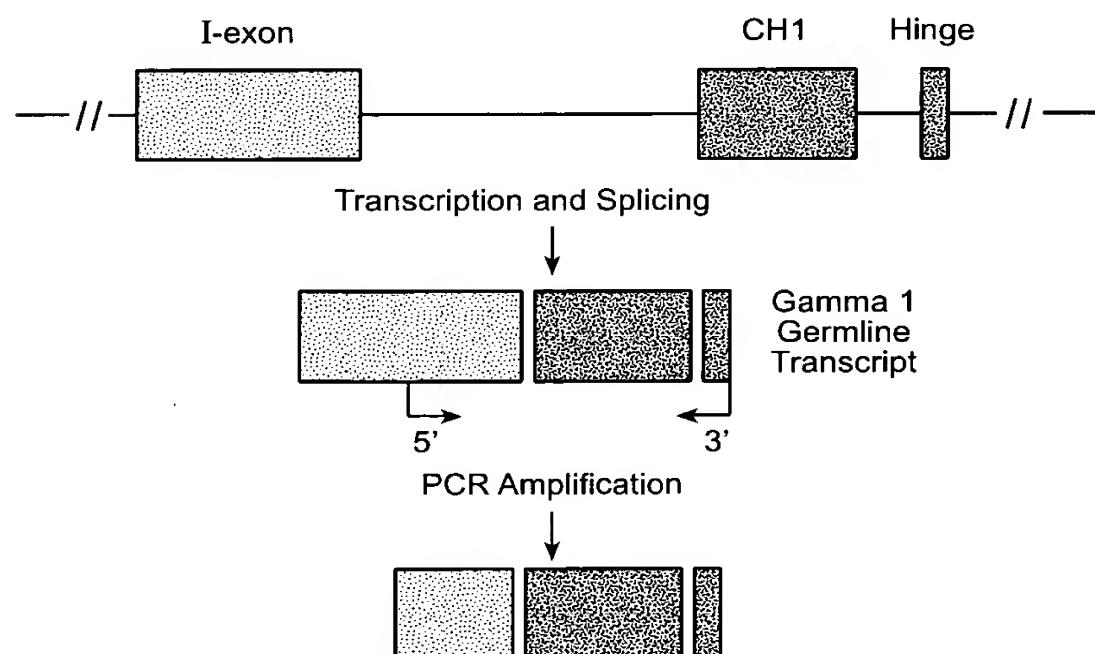
Germline Ig Gamma 4 Probe

GGCCAGGACCATGGAAGGCCAAGGGAGGCAGCAGGCCAGGGGAGGTGGGCAGGCCCTTCAGGCACGTGATGCCACCCAGGTGC
 GAGACGAGGGGACCGTGGGCAGGGCTTCCAAAGCCAAACAGGGCAGGACACACCAGGGCTGACTGAGGGCTCCAGGAGC
 ACCGGGGCTGGGAGCACGGAGGAACATGACGGGATGCCAGGAGGGAGGGAGGGAGGGGGCTGGGTGATGCCAGGATGGGCACGGAC
 TGAGCTCAGGGCAGGAGGCAGGGAGGGAGGGAGGGAGGGAGGGAGGGCTGGGTGAAACGGAGGGCTTGTCCAGGGCAGGAC
 CAGAGGCCAGGGCAGGGTCAAGCAGAGGCTGGCCGTAGGGCCCTCCTCAAGCCAGGACAGGACAGGAGCTTCCACCAAG
 GGGCCCATCCTGTTCCCCCTGGGCCCTGGTCCAGGAGCACCTCCAGGAGCACGCCGCTGGCTGGCTGGTCAAGGAA
 CTACTTCCCCCGAACCGG

FIG._4B

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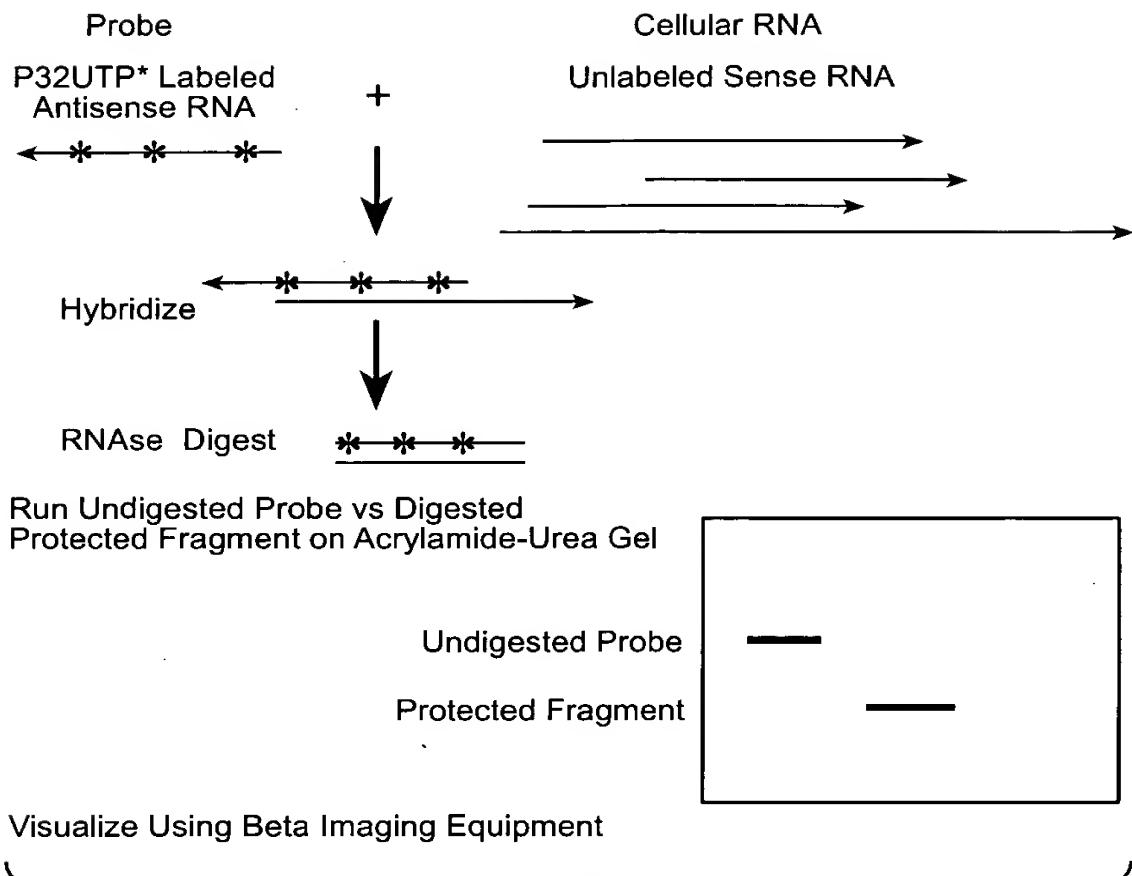
	I-exon	C-exons	
Epsilon Probe			202 BP Protected Fragment
Alpha 1 Probe			399 BP Protected Fragment
Alpha 2 Probe			430 BP Protected Fragment
Gamma 1 Probe			370 BP Protected Fragment
Gamma 2 Probe			387 BP Protected Fragment
Gamma 3 Probe			391 BP Protected Fragment
Gamma 4 Probe			391 BP Protected Fragment

FIG._5

The Gamma 1 5' and 3' Primers amplify a completed probe of 370 BP

FIG._6

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**FIG._7**Alpha-1

L04541 = I Region Exon
BC005951 = Constant Region Exons

Alpha-2

L04541 = I Region Exon
AL389978 = Constant Region Exons

Epsilon

X56797= I Region Exon
J00222 = Constant Region Exons

Gamma-1

A2122127 = I Region Exon
Z17370 = Constant Region Exons

Gamma-2

U39934 = I Region Exon
J00230 = Constant Region Exons

Gamma-3

AI122127 = I Region Exon
X16110 = Constant Region Exons

Gamma-4

X56796 = I Region Exon
K01316 = Constant Region Exons

FIG._9

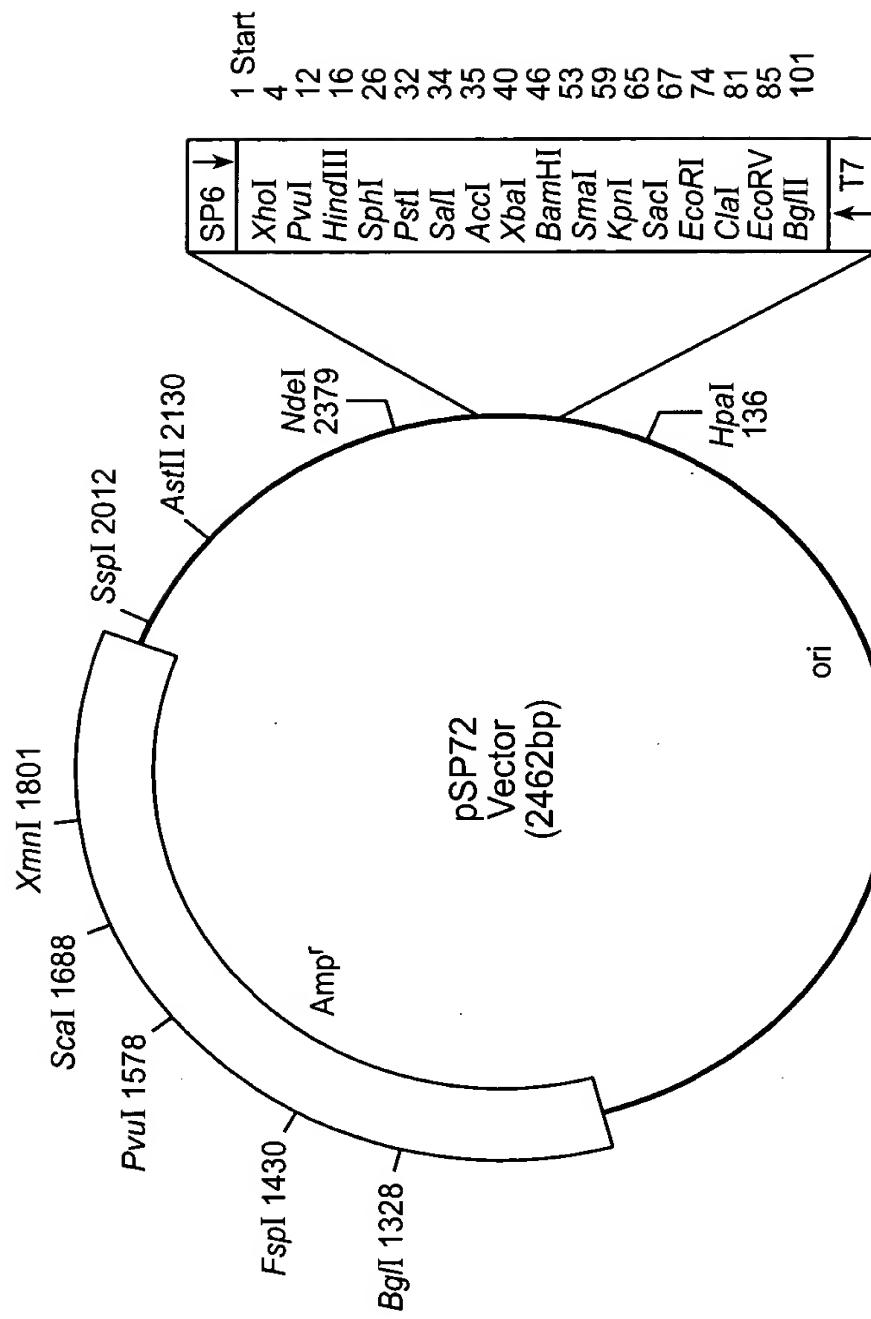


FIG._8